REMARKS

Claims 1, 3, 4, 9, and 14 have been amended solely for clarity in regard to the § 112 rejection, and do not raise any new issues. Claims 1-35 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 112, Second Paragraph, Rejection:

The Examiner rejected claims 1-7, 9 and 14 under 35 U.S.C. § 112, second paragraph, as being indefinite in the use of "become a content publisher peer node." Applicants traverse this rejection. However, to expedite prosecution, Applicants have amended claims 1, 3, 9 and 14 to read "…become an additional content publisher peer node…" Thus, Applicants respectfully request removal of the § 112 rejection of claims 1-7, 9 and 14.

The Examiner rejected claim 4 under 35 U.S.C. § 112, second paragraph as being indefinite in the use of "receive a portion of the particular content from a first content publisher peer node that caches the particular content in response to the request." Applicants traverse this rejection. However, to expedite prosecution, Applicants have amended claim 4 to read "in response to the request: receive a portion of the particular content from a first content publisher peer node that caches the particular content; and receive another portion of the particular content from a second content publisher peer node that also caches the particular content." Thus, Applicants respectfully request removal of the § 112 rejection of claim 4.

Section 102(e) Rejection:

The Examiner rejected claims 1, 12, 20, 24, 25, 28 and 33 under 35 U.S.C. § 102(e) as being anticipated by Burbeck et al. (U.S. Publication 2003/0217139) (hereinafter "Burbeck"). Applicants respectfully traverse this rejection for at least the reasons below.

In regard to claim 1, contrary to the Examiner's assertion, Burbeck fails to anticipate at least one of the plurality of peer nodes configured as a publisher peer node for one or more contents cached on the peer node, wherein each publisher peer node is configured to publish one or more advertisements on the network, wherein **each advertisement corresponds to one of the one or more contents** cached on the peer node, and wherein each advertisement includes information for requesting a corresponding content.

The Examiner cites Burbeck, paragraph [0023], lines 1-3, in support of the assertion that Burbeck teaches *wherein each publisher peer node is configured to publish two or more advertisements on the network, wherein each advertisement corresponds to one of the one or more contents cached on the peer node*. The citation states (emphasis added):

> Preferably, as each node as it enters the network, it broadcasts <u>a message</u> to advertise (inter alia) what content the node holds.

This broadcast message corresponds to the "alive" message that a node broadcasts to advertise its presence on the network, e.g. at startup time (*see, e.g.,* paragraph [0111]). Thus, Burbeck's nodes send a single "alive" message that 1) advertises the node's presence; and 2) collectively advertises <u>all</u> content the node holds. In contrast, claim 1 recites that each publisher peer node publishes advertisements on the network, and each of the published advertisements corresponds to <u>one</u> of the contents cached on the peer node. Thus, in claim 1 of the instant application, there is a one-to-one correspondence between an advertisement and a corresponding content, and each advertisement is published on the network independently. Thus, each content is published independently in claim 1, in contrast to Burbeck in which one "alive" message is broadcast to advertise what content the node holds.

In further regard to claim 1, contrary to the Examiner's assertion, Burbeck fails to anticipate at least a subset of the plurality of peer nodes each configured to: discover published advertisements on the network; and request content

corresponding to the discovered advertisements <u>in accordance with the information included in the advertisements.</u>

The Examiner cites Burbeck, paragraph [0023], lines 3-5, which reads:

The technique may further comprise: requesting, by a node receiving the broadcast message, a particular content resource from the broadcasting node

Burbeck does not teach <u>discovery</u> of published advertisements on the network. Instead, Burbeck teaches that a node broadcasts <u>a message</u> to advertise what content the node holds. Another node may then receive the broadcast "alive" message. Simply receiving a broadcast message is not the same as a node <u>discovering</u> published advertisements.

In addition, the citation from Burbeck (paragraph [0023]) and Burbeck in general does not teach that a peer node is configured to request content corresponding to a discovered advertisement in accordance with <u>information included in an advertisement</u>. FIG. 11 of Burbeck is a flowchart of Burbeck's method of a node as requesting content from its peers, and FIG. 11 is described in the specification beginning at paragraph [0124]. Burbeck's method for requesting content is clearly and distinctly different than what is recited in claim 1 of the instant application. In the method, Burbeck does <u>not</u> teach that a node requests content corresponding to a discovered advertisement <u>in accordance with information included in the advertisement</u>. **Specifically, Burbeck does not teach that a node requests content from a particular node in accordance with information in an "alive" message, which the Examiner has equated to Applicants' "advertisements", received from that node.** Instead, Burbeck teaches in FIG. 11 and the accompanying discussion that a node sends or broadcasts a query request to <u>multiple</u> nodes or peers and waits for response messages to the query message (paragraphs [0124] – [0130]). The query request does not request the content, but instead requests nodes to respond that may be able to satisfy the query. The requesting node then processes meta-data from the response messages (paragraph [0131]), after which a "user" evaluates the

meta-data from the collection of responding nodes to identify a peer that best satisfies the query. A request for the content is then sent to the identified peer.

Applicants remind the Examiner that anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. M.P.E.P 2131; *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The **identical** invention **must** be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Nowhere does the Burbeck reference disclose "each and every element of the claimed invention" (claim 1 of the instant application) as arranged in the claim. For example, Burbeck does not disclose *wherein each publisher peer node is configured to publish one or more advertisements on the network, wherein each advertisement corresponds to one of the one or more contents cached on the peer node*, nor does Burbeck disclose a node configured to *request content corresponding to a discovered advertisements in accordance with the information included in the advertisement*. Furthermore, even if Burbeck did disclose one or more of the above elements, nowhere does Burbeck disclose the above elements arranged as in claim 1. For at least the reasons given above, Burbeck clearly does not anticipate Applicants' claim 1.

Thus, for at least the reasons presented above, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested.

In regard to claim 12, contrary to the Examiner's assertion, Burbeck does not anticipate an edge content publisher peer node configured to receive the user-requestable contents from the primary content publisher peer node and cache the received contents.

The Examiner cites Burbeck, paragraph [0023], lines 8-10. Paragraph [0023] states:

The technique may further comprise: requesting, by a node receiving the broadcast message, a particular content resource from the broadcasting node; receiving the requested content resource at the requesting node, along with a reference to the holding node's directed graph for that content resource; storing the received content resource in a local content repository; and storing a local copy of the directed graph for the received content resource.

In the citation, Burbeck is describing a "technique" that comprises a node requesting a particular content resource from a broadcasting node, receiving the particular content resource, and storing the particular content resource. In contrast, claim 12 recites an edge content publisher node receiving contents from a primary content publisher peer node and caching the received contents. Claim 12 does not include a limitation of the edge content publisher node requesting the contents. In addition, claim 12 recites receiving contents, i.e. more than one content, while the citation from Burbeck is describing requesting and receiving a single, particular content resource.

Furthermore, the Examiner asserts "requesting peer caches received content is an edge peer node." Burbeck is silent as to the notion of the "requesting peer" being an edge peer node or an edge content publisher node. In Applicants' specification, "edge" is defined as "edge of a network and/or the Internet" (see, e.g., page 11, lines 3-14). An edge content publisher peer node is a node that caches and publishes content at the "edge of a network and/or the Internet." The Examiner's assertion that "requesting peer caches received content is an edge peer node" is not supported by the cited art, and is merely conclusory.

In further regard to claim 12, the Examiner's assertion that Burbeck discloses *an edge content publisher peer node configured to…publish the received contents for access by the other peer nodes on the network* is not supported by the Examiner's citation and argument. The Examiner cites paragraph [0118], and asserts "receiving peers further broadcasting advertisements to other peers." Paragraph [0118] describes a node's initial "alive" message being propagated on a network, and "alive" messages from other nodes being responsively returned to the broadcasting node so that the new node (upon entering

the network) can "dynamically learn the P2P network topology." The paragraph does <u>not</u> describe, and is not at all directed at or even suggestive of, an edge content publisher peer node receiving contents from a primary content publisher peer node and responsively publishing the received contents.

Applicants remind the Examiner that anticipation requires the presence in a single prior art reference disclosure of <u>each and every element</u> of the claimed invention, <u>arranged as in the claim</u>. M.P.E.P 2131; *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The <u>identical</u> invention must be shown <u>in as complete detail</u> as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Nowhere does the Burbeck reference disclose "each and every element of the claimed invention" (claim 12 of the instant application) as arranged in the claim. For example, Burbeck does not disclose *an edge content publisher peer node configured to receive the user-requestable contents from the primary content publisher peer node and cache the received contents.* Furthermore, even if Burbeck did disclose one or more of the above elements, nowhere does Burbeck disclose the above elements <u>arranged as in claim 12</u>. For at least the reasons given above, Burbeck clearly does not anticipate Applicants' claim 12.

Thus, for at least the reasons presented above, the rejection of claim 12 is not supported by the cited art and removal thereof is respectfully requested.

In regard to claim 20, the Examiner's assertion that Burbeck discloses one of the other peer nodes ...*publishing the received particular content for access by the other peer nodes on the network* is not supported by the Examiner's citation and argument. The Examiner cites paragraph [0118], and asserts "receiving peers further broadcasting advertisements to other peers." Paragraph [0118] describes a node's initial "alive" message being propagated on a network, and "alive" messages from other nodes being responsively returned to the broadcasting node so that the new node (upon entering the network) can "dynamically learn the P2P network topology." The paragraph does <u>not</u> describe, and is not at all directed at or even suggestive of, an edge content publisher peer

node receiving contents from a primary content publisher peer node and responsively publishing the received contents.

Moreover, nowhere in the citation or elsewhere does Burbeck teach or suggest a node publishing a <u>received particular content</u> for access by other peer nodes.

Applicants remind the Examiner that anticipation requires the presence in a single prior art reference disclosure of <u>each and every element</u> of the claimed invention, <u>arranged as in the claim</u>. M.P.E.P 2131; *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The <u>identical</u> invention must be shown <u>in as complete detail</u> as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Nowhere does the Burbeck reference disclose "each and every element of the claimed invention" (claim 12 of the instant application) as arranged in the claim. For example, Burbeck does not disclose a node publishing a received particular content for access by other peer nodes. Furthermore, even if Burbeck did disclose one or more of the above elements, nowhere does Burbeck disclose the above elements <u>arranged as in claim 20</u>. For at least the reasons given above, Burbeck clearly does not anticipate Applicants' claim 20.

Thus, for at least the reasons presented above, the rejection of claim 20 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 20 also apply to claim 28.

<u>Section 103(a) Rejection</u>:

The Examiner rejected claims 2-5, 8, 9, 13, 14, 18, 19, 21-23 and 29-31 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck in view of Leber et al. (U.S. Publication 2003/0233455) (hereinafter "Leber").

In regard to claim 8, the Examiner relies upon Leber to teach *receive the particular content from a logically nearest content publisher peer node of the plurality of content publisher peer nodes on the network, wherein a logically nearest peer node is a peer node to which communications over the network take the least time.* The Examiner cites Leber, Abstract, Fig. 6, steps 615-640, and paragraph [0098]. Leber discloses, in the Abstract (emphasis added):

> The method involves sending a request for a file to the server computer; receiving back from the server an authentication code and a list of peer client computers that have the requested file or part of it; sending a request for the file to a subset of peer clients that yield the fastest download rate; receiving file data back from this subset of peer clients; reassembling the requested file using data sent by the peer clients; and checking the integrity and completeness of the reconstructed file by comparing a computed checksum of said reconstructed file with the authentication code.

The above description from Leber's Abstract is consistent with Fig. 6 and the description thereof found in paragraphs [0096] through [0106]. From the above, Leber does not disclose receiving the particular content from a logically nearest content publisher peer node of the plurality of content publisher peer nodes on the network. Instead, Leber discloses receiving file data from a plurality of peer clients. In paragraph [0033], Leber actually states (emphasis added):

> Additionally, the present invention **eliminates** the requirement for a user to download an entire file from a single source and instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers.

From the above, Leber actually appears to teach away from downloading "an entire file" from a single source, and to thus teach away from what Burbeck teaches and from what is recited in claim 8.

Furthermore, Leber's disclosed method **requires** sending a request for a file to a server computer. FIG. 11 of Burbeck is a flowchart of Burbeck's method of a node as requesting content from its peers, and FIG. 11 is described in the specification beginning at paragraph [0124]. Burbeck's method for requesting content is clearly and distinctly

different than what Leber describes, and does not employ sending a request to a server at any point. In the method, Burbeck does <u>not</u> teach that a node sends a request for a file to a server computer, receiving back from the server an authentication code and a list of peer client computers that have the requested file or part of it. Instead, Burbeck teaches in FIG. 11 and the accompanying discussion that a node sends or broadcasts a query request to <u>multiple</u> nodes or peers and waits for response messages to the query message (paragraphs [0124] – [0130]). The query request does not request the content, but instead requests nodes to respond that may be able to satisfy the query. The requesting node then processes meta-data from the response messages (paragraph [0131]), after which a "user" evaluates the meta-data from the collection of responding nodes to identify a single peer that best satisfies the query. A request for the content is then sent to the identified peer.

Furthermore, Burbeck discloses, in paragraph [0138], "In addition, the traversal path will be extended to include the current node as the latest target node in the directed graph (that is, by creating a new <arc> element of the form shown at 735 in FIG. 7)." Burbeck, as previously mentioned, discloses a directed graph for tracking the traversal of content resources across nodes. It is not at all clear how Leber's system and a method for the transfer of <u>multiple parts of a file from a plurality of peer client computers</u> would or <u>could</u> be combined with Burbeck's system while maintaining Burbeck's disclosed elements, e.g. the directed graph for tracking the traversal of content resources across nodes.

Furthermore, the Examiner has not stated a proper reason to combine the teachings of the cited art. The Examiner asserts that it would have been obvious to combine the teachings of Burbeck with the teachings of Leber "to provide peer-to-peer services from the peer where the service is available with the best QoS in order to save unnecessary long distance communications costs." The Examiner's reason is not found in either of the cited references, nor is the reason found in Applicants' specification. The Examiner's reason is not supported by any evidence of record and is thus found only in hindsight. Moreover, the references actually teach away from their combination. First, Leber states that Leber's invention "**<u>eliminates</u>** <u>the requirement for a user to download an</u>

entire file from a single source and instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers," while Burbeck's system, e.g. the directed graph for tracking the traversal of content resources across nodes, appears to rely on a content resource moving from just one node to another node. In addition, Leber's system relies on a server computer in requesting content, while Burbeck's system clearly and purposefully does not rely on a server computer system in requesting content. "It is improper to combine references where the references teach away from their combination." *In re Grasselli*, 218 USPQ 769, 779 (Fed. Cir. 1983). In addition, combining Leber with Burbeck would appear to make Burbeck's "Methods, systems, and computer program products for tracking content in a transient peer-to-peer networking environment" unworkable as disclosed. "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Furthermore, combining Leber with Burbeck would appear to drastically change the principle of operation of Burbeck's disclosed system. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Thus, one of ordinary skill would not have combined the teachings of [*reference A*] with the teachings of [*reference B*] in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness.

Thus, for at least the reasons presented above, the rejection of claim 8 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 8 also apply to claim 18.

The Examiner rejected claims 6, 7, 16, 17, 26, 27, 34 and 35 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck in view of Lehikoinen et al. (U.S. Publication 2004/0260701) (hereinafter "Lehikoinen"), claims 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck and Leber in view of Lehikoinen, and claims 15, 24 and

32 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck in view of Saulpaugh et al. (U.S. Publication 2004/0122903) (hereinafter "Saulpaugh"). Since the rejection has been shown to be unsupported for the independent claims, a further discussion of these rejections is not necessary at this time.

Applicants also assert that the rejection of numerous ones of the dependent claims is further unsupported by the cited art. However, since the rejections have been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-08300/RCK.

Respectfully submitted,

/Robert C. Kowert/
Robert C. Kowert, Reg. #39,255
Attorney for Applicants

Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C.
P.O. Box 398
Austin, TX 78767-0398
Phone: (512) 853-8850

Date: ___June 10, 2008___